Samir Khleif et al.
Appl. No. 09/810,310
Amdt. dated May 18, 2005
Reply to Office Action of November 18, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method for eliciting an immune response in a subject comprising

administering an immunogenically effective amount of a peptide or protein antigen comprising one or more T cell epitope(s) coordinately with a non-viral vector comprising a polynucleotide encoding at least one of a B7-1, B7-2, and B7-3 co-stimulatory molecule, wherein the non-viral vector and peptide or protein antigen are administered separately to closely adjacent sites.

- 2. (Original) The method of claim 1, wherein the peptide or protein antigen comprises a T cell epitope of a tumor antigen or viral antigen.
 - 3-5. (Canceled)
- 6. (Currently amended) A method for eliciting an immune response in a subject comprising

administering an immunogenically effective amount of a protein antigen comprising at least one T cell epitope coordinately with a non-viral vector comprising a polynucleotide encoding at least one of a B7-1, B7-2, and B7-3 co-stimulatory molecule, wherein the non-viral vector and protein antigen are administered separately to closely adjacent sites.

7. (Original) The method of claim 2, wherein the viral antigen is selected from a human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV), herpes simplex virus (HSV) or human papilloma virus (HPV) antigen.

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8. (Original) The method of claim 7, wherein the peptide antigen comprises at least nine contiguous amino acids of a HPV antigenic protein.

9-10. (Canceled)

- 11. (Currently amended) The method of claim 1, wherein the [[B7]] at least one co-stimulatory molecule is B7-1[[,]] or B7-2, B7-3, or B7-H.
- 12. (Currently amended) The method of claim 11, wherein the [[B7]] at least one co-stimulatory molecule is B7-1.
- 13. (Currently amended) The method of claim 1, wherein the peptide antigen and non-viral vector encoding one or more B7 co-stimulatory molecules are administered to the subject simultaneously as a mixture in a pharmaceutically acceptable carrier or diluent.
- 14. (Currently amended) The method of claim 1, wherein the peptide antigen and non-viral vector encoding the B7 co-stimulatory molecule are administered separately to the subject in a sequential vaccination protocol.
- 15. (Currently amended) The method of claim 1, wherein the peptide antigen and non-viral vector encoding the B7 co stimulatory molecule are administered to proximal target sites selected from the same, or closely-adjacent, intradermal, subcutaneous, mucosal or intratumoral sites.
- 16. (Original) The method of claim 1, wherein the non-viral vector is selected from a RNA or DNA vector.
- 17. (Currently amended) The method of claim 1, wherein the non-viral vector comprises a naked DNA vector having the polynucleotide encoding the co-stimulatory molecule(s) operably linked to regulatory elements necessary for expression of the co-stimulatory molecule(s) in eukaryotic cells.

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18-31. (Canceled)